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AMENDMENT UNDER 37 C.F.R. § 1.111
U.S. Application No.: 09/427,263

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first obtaining a protocol encoded raw form of a data and thereafter generating said syntax-normalised form from said protocol encoded raw form of the data.

3. (Amended) A method of storing data in a database, as claimed in claim 1, wherein said storing step comprises:

maintaining both the syntax-normalised form and the protocol encoded raw form of the data for data base searching and data retrieval.

4. (Amended) A method of storing data in a database, as claimed in claim 3, wherein said maintaining step comprises maintaining said protocol encoded raw form and syntax-normalised form of a data in at least two tables concurrently.

5. (Amended) A method of storing data in a database, as claimed in claim 4, wherein said maintaining step further comprises correlating the storage location of said protocol encoded raw form and said normalised form in said at least one table.

12. (Amended) A method of locating data in a database, wherein said data is stored linked to a syntax-normalised form of the data, comprising the step of:

locating said protocol encoded raw data by searching on said syntax-normalised form of the data.

31. (Amended) A database apparatus comprising:

means for obtaining both a protocol encoded raw form of a data to be stored and a syntax-normalised form of said data; and

a storage medium for storing concurrently both the syntax-normalised form and the protocol encoded raw form of said data.

32. (Amended) A database apparatus for storing data in a database, as claimed in claim 31, wherein said means for obtaining comprises:

means for first obtaining a protocol encoded raw form of a data and thereafter generating said syntax-normalised form from said protocol encoded raw form of the data.

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33. (Amended) A database apparatus for storing data in a database, as claimed in claim 31, wherein said storage medium is operative to maintain both the syntax-normalised form and the protocol encoded raw form of the data for data base searching and data retrieval.

34. (Amended) A database apparatus for storing data in a database, as claimed in claim 33, wherein said storage medium is operative to maintain said protocol encoded raw form and syntax-normalised form of a data in at least two tables.

35. (Amended) A database apparatus for storing data in a database, as claimed in claim 34, wherein said

storage locations of said protocol encoded raw form and said syntax-normalised form of data are correlated in said at least two tables.

41. (Amended) An apparatus for locating data in a database, wherein said data is stored in a table in a protocol encoded raw form and linked to a concurrently stored syntax-normalised form of the data, comprising:

means for locating said protocol encoded raw form of the data by searching on said syntax-normalised form of the data.

56. (Amended) In a directory service system, having a database in which data is stored in a first form, being a protocol encoded raw form, and a second form, being a syntax-normalised form, apparatus for transferring data into and out of the database, comprising:

means for finding data in the database using a syntax-normalised form; and

means for transferring data out of the database using a protocol encoded raw form.

57. (Amended) A computer program product, including a storage medium for storing a computer program, the computer program being executable to perform a method as claimed in any one of claims 1-5.

58. (Amended) A method as claimed in any one of claims 1-6 and 27-29 wherein the protocol encoded raw form of data is stored in ASN.1 format.

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~~60. (Amended) An apparatus as claimed in any one of claims 31-43 wherein said protocol encoded raw data or data is stored in ASN.1 format.~~